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EPIDEMIOLOGICAL PROFILE OF HIV/AIDS INFECTION RELATED TO OCCUPATIONAL ACTIVITY

PERFIL EPIDEMIOLÓGICO DA INFECÇÃO POR HIV/AIDS RELACIONADO A ATIVIDADE OCUPACIONAL

PERFIL EPIDEMIOLÓGICO DE LA INFECCIÓN POR HIV/AIDS RELACIONADO A LA ACTIVIDAD OCUPACIONAL

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ABSTRACT

Objective: tracing the epidemiological profile of individuals in occupational activity that presented positive serology when submitted to HIV test in a Testing and Counseling Center/TCC. **Method:** a descriptive exploratory study with a quantitative approach. Data were obtained from the Interface System of Laboratory Tests of TCC (SIREX), and through the records of users. The research project was approved by the Research Ethics Committee, CAAE nº 27132114.7.0000.5208. **Results:** the sample consisted of 116 users, mostly female (52,59%) living in urban areas (89,66%), and up to 8 years of study (69,83%). The most prevalent professions were housewives (29,31%), farmer (11,21%), self-employed (6,90%), student (5,17%). **Conclusion:** the epidemiological profile of registered users in the CTA comprises the population of young people and adults, with a slight female predominance, residents of urban areas and low level of education. **Descriptors:** Infectology; Epidemiology; AIDS.

RESUMO

Objetivo: traçar o perfil epidemiológico de indivíduos em atividade ocupacional que apresentaram sorologia positiva ao se submeterem ao teste anti-HIV, em um Centro de Testagem e Aconselhamento/CTA. **Método:** estudo descritivo e exploratório com abordagem quantitativa. Os dados foram obtidos do Sistema de Relação de Exames Laboratoriais do CTA (SIREX), e por meio do prontuário dos usuários. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa, CAAE nº 27132114.7.0000.5208. **Resultados:** amostra consistiu de 116 usuários, sendo a maioria do sexo feminino (52,59%), moradores de zona urbana (89,66%), e com até oito anos de estudos (69,83%). As profissões mais evidenciadas foram: do lar (29,31%), agricultor (11,21%), autônomo (6,90%), estudante (5,17%). **Conclusão:** o perfil epidemiológico dos usuários cadastrados no CTA é composto pela população de jovens e adultos, com discreta predominância do sexo feminino, residentes da zona urbana e de baixo nível de escolaridade. **Descritores:** Infectologia; Epidemiologia; AIDS.

RESUMEN

Objetivo: trazar el perfil epidemiológico de individuos en actividad ocupacional que presentaron serología positiva al someterse al test anti-Sida en un Centro de Testes y Asesoramiento/CTA. **Método:** estudio descriptivo y exploratorio con abordaje cuantitativo. Los datos fueron obtenidos del Sistema de Relación de Exámenes de Laboratorios del CTA (SIREX), y a través de los archivos de los usuarios. El proyecto de investigación fue aprobado por el Comité de Ética en Investigación, CAAE No. 27132114.7.0000.5208. **Resultados:** la muestra fue de 116 usuarios, siendo la mayoría del sexo femenino (52,59%), moradoras en zona urbana, y con hasta 8 años de estudios (69,83%). Las profesiones más evidentes fueron amas de casa (29,31%), agricultor (11,21%) autónomos (6,90%), estudiantes (5,17%). **Conclusión:** el perfil epidemiológico de los usuarios registrados en el CTA está compuesto por la población de jóvenes y adultos, con discreta predominancia del sexo femenino, residentes en zona urbana y de bajo nivel de escolaridad. **Descriptores:** Infectología; Epidemiología; SIDA.

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INTRODUCTION

The epidemic of Acquired Immune Deficiency Syndrome (AIDS) is an important public health problem that affects, heterogeneously, different segments of the population and affects the various regions of Brazil according to some sociodemographic characteristics.¹ From the perspective of employment relationships, one individual is likely to be exposed to infection as his living conditions, such as: employment status, level of organization of his professional category or responsiveness to the AIDS epidemic by the company he belongs to.²

According to the Department of Sexually Transmitted Infections (STIs), AIDS and Viral Hepatitis, it is estimated that there is currently 630.000 people 15-49 years living with HIV/AIDS in Brazil. Of these, around 255.000 do not know their HIV status.³ Therefore, the productive power of the country has been heavily affected by the epidemic because, most HIV-positive people is in the age group able to integrate the economically active population.²

Inadequate working conditions, lack of correct information and prevention, as well as vulnerability factors for workers' health, can leave the individual in occupational activity likely to acquire HIV infection and generates consequences of economic, due to costs labor, by absenteeism, loss of skilled labor and productivity so as to lead to a deterioration of labor relations and productivity. In this scenario, the World Health Organization (WHO) in association with the International Labor Organization (ILO) has been mobilized by making recommendations in order to foster a systematic and effective action against HIV/AIDS, in order to prevent and manage its impact in the workplace.⁴

The seropositive workers should not be discriminated against in the exercise of occupational activity, as well as their admission. However, people living with HIV are various barriers such as exclusion from the labor market, contempt of confidentiality in the workplace, suffering associated with fear of rejection and prejudice, absence from work due to the infection, which leads the individual to a worse health condition.⁵⁻⁶

In the workplace, AIDS is not seen as any other disease, making it a pretext for discrimination and also to the emergence of difficulties related to the exercise of the right of labor, involves the employment instability, loss of reintegration prospects in the market work and difficulties in maintaining the occupation.⁶⁻⁷ This can be countered with

awareness-raising measures, with the involvement of all workers, through a continuous process of stimulating interest in issues related to AIDS, which can emphasize that HIV is not transmitted by casual contact and the employee with HIV should not be considered a threat to the workplace.

Most HIV-infected employees want to remain active, work is seen as an important factor for personal fulfillment, and this increases their physical and mental well-being.⁵ This context, see how behaves HIV infection in different groups population in occupational activity is important because it contributes to the development of public policies and strategies for prevention and control of AIDS in the workplace applicable to our regional reality.

This study aims to:

- Tracing the epidemiological profile of individuals in occupational activity that presented positive serology when undergoing the HIV test in a Testing and Counseling Center (TCC).

METHOD

It is a descriptive and exploratory study with a quantitative approach. This type of material approach for data collection that can be measured in numbers, classified and analyzed using statistical techniques, avoiding possible distortions of interpretation and analysis of the results, enabling greater safety margin.⁸

The study was conducted in a Testing and Counseling Center (TCC) from secondary data available in Interface System of Laboratory Tests of HIV (SIREX), and registered users of the records of TCC.

The data of HIV-positive individuals in occupational activity were analyzed, employed or not, of both genders aged greater than or equal to 18 years old, and demanded that the TCC to conduct anti-HIV serology, from January 2009 to December 2013. Exclusion criteria were incomplete records, medical records unreadable and unavailable.

The variables of interest were: age, categorized in the strata 20-29 years old, 30-39, 40 - 49, 50-59 and > 60 years old; gender; ethnicity; education, region, urban or rural; income and occupational status, which is the situation reported by the user, which was regrouped into strata reflecting economic dependence (the home, student, inmate) and presence of income (employee, self).

Data were tabulated through Microsoft Office Excel software and analyzed using Epi

Info software, version 7.13. For the statistical analysis were calculated the frequencies of measures, percentages and central tendency, and the results were expressed in tables.

The study is in compliance with the recommendations of Resolution nº 466/12 of the National Health Council which deals with guidelines and regulatory standards for research involving human subjects and was approved by the Research Ethics Committee of the Health Sciences Center of the Federal University of Pernambuco, under the protocol nº 27132114.7.0000.5208.

RESULTS

In the selected period it was found that 18.242 individuals have undergone the realization of HIV testing in a TCC. Of these, 127 users had diagnostic confirmation of positive serology, however, 11 users were excluded from the study because of lack of

data on SIREX, the medical records and/or absence of occupational activity.

Of the 116 users studied, 61 (52,59%) were female, the average age was 38,7 years, with standard deviation of 11,5 years, minimum 20 and maximum of 69 years. The predominance of the 2nd to 4th decade was observed, represented by 81,03% of patients. As to gender, the average age for women was 38,2 ± 11,9 years and for men was 39,2 ± 11,2 years.

There was a predominance of users residing in urban areas and low level of education, in which 69,83% of users had not completed high school (Table 1). Due to lack of fulfillment of other variables of interest such as ethnicity, income in all records and SIREX, they were not included in the study.

Table 1. Sociodemographic characteristics of HIV-positive users met in testing and counseling center from January 2009 to December 2013.

Variables	n	%
Gender		
Female	61	52,59
Male	55	47,41
Age (years)		
20 - 29	22	18,97
30 - 39	43	37,07
40 - 49	28	24,14
50 - 59	15	12,93
≥60	8	6,90
Area		
Urban	104	89,66
Rural	12	10,34
Schooling		
Illiterate	10	8,62
elementary incomplete	27	23,28
elementary complete	44	37,93
High school incomplete	0	0
High school complete	23	19,83
Higher education complete	3	2,59
Non informed	9	7,76
Total	116	100

Occupational situation that reflected economic dependence covering 43 users, of which 34 (29,31%) were women with occupation of the home, 06 (5,17%) students and 03 (2,59%) inmates. Occupational situation with employment or presence of income was diverse, comprising 25 occupations: 13 (11,21%) users were farmers and 04 of them were living in urban areas; 08 (6,90%) autonomous users; 06 (5,17%) sex workers, of whom 04 were male, average age 30 years old; 06 (5,17%) seller; 05 (4,31%) drivers; 05 (4,31%) hairdressing; 04 (3,45%)

servants; 03 (2,59%) domestic; 03 (2,59%) cooks; 02 (1,72%) vigilant, with the same value for the professions of administrative assistant, trader and bricklayer's assistant. The number of HIV-positive users was equal to 01 (0,86%) for the professions of motorcycle courier, home, health worker, clerk, street sweeper, garbage collector, painter, teacher, lecturer, secretary and attendant.

DISCUSSION

This study demonstrated that there was a predominance of young people and adults

aged 20 to 49, corresponding to 80,17% of the study population. Since the beginning of the epidemic in Brazil this has been the hardest hit age group, characterized by people of childbearing age, sexually active and able to integrate the economically active population, according to studies⁹⁻¹³ of national and international nature described in the literature. It is known that according to the individual's behavior, he may be in a position of vulnerability to infection with HIV/AIDS. Youth and adults has shown behavior and personal attributes that influence HIV infection, such as unprotected sex by relying on partner, forgetting to use condoms as a preventive method, by being on the pill for unplanned sexual intercourse, sexual promiscuity, abuse of alcohol and/or drugs or even by themselves as enlightened on the subject, so as not to perceive the risk of acquiring HIV.¹⁴

By analyzing the gender variable, it was noticed that the number of HIV-infected women is higher when compared to males, corroborating other profiles^{10,12} that demonstrated that the percentage is higher in the female population. This raises the issue of the feminization of the HIV epidemic, where the number of infected women has increased over the years due to several factors such as biological vulnerability, because women are biologically more susceptible to infection because of transmission heterosexual who is one of the features that has most contributed decisively to the increase of HIV chaos in women. This aspect this selected to the fact that their partners avoid condom use, inability to negotiate safer sex practices, submission to the will of man, distinction regarding the morality of sexual behavior of men and women within the family and society, as well as gender inequalities in political, cultural and socioeconomic areas.^{15-6,20}

For women it is still difficult to access appropriate information and prevention methods controlled by themselves, as the use of female condom, essentially restricted to layered with more financial resources, because its price is high and is a limited availability of condoms in primary care network, so that there is asymmetry between the acceptability and access in order to negatively impact the poorest social strata.¹⁶

Data from this study demonstrated that the level of education was low, where more than half of the subjects had attended to the 1st degree, which shows a downward trend in HIV prevalence in the education level increases. Such information is according to the research^{9,17-8,22}, showing that the majority of

its population study failed to complete elementary school. Schooling is considered an indirect indicator to characterize the economic situation, albeit with some restrictions and is portrayed in the phenomenon of pauperization of the epidemic that has been characterized by increasing the proportion of AIDS cases in individuals of low education level.¹⁹⁻²⁰ a little education and a smaller field of written language create barriers to access to information and tends to reduce the adhesion of preventive practices, as well as maintaining preventive behaviors, while awareness of HIV infection requires a satisfactory level of education since individuals, the study for more years, it has the facility on and understanding of information, as well as methods of prevention.^{19,21}

Residents in urban areas covering 89,66% of users studied, to demonstrate the urban character of the epidemic^{13,20-1} studies are consistent with the data from this research and discourse on the epidemic to be more intense in urban areas and begin to spread in the countryside and the internalization of the epidemic reflects increased expansion of the epidemic coverage area.

About the evaluation of occupational hazard, professionals with higher prevalence rates were housewives (29,31%), farmer (11,21%), self-employed (6,90%), seller (5,17%), student (5,17%) and sex worker (5,17%). In surveys conducted^{18,23-4} there were found on the same professional categories highlighted in this study. This shows that professions that denote low-pay or no income are related to HIV infection; importantly to note that as reported in the aforementioned studies, the HIV/AIDS appears to be linked to low education and underprivileged economic classes. The collaborative research still discourse that some individuals have been away from work because of retirement, sickness, for keep away from by choice labor market, or because of neglect caused by complications secondary to HIV infection, this makes these dependent individuals of the social security service, family or charities.

From the precept that the human body relates to materially by working², since the design work in our society is associated to life, and provides material and moral conditions of survival and family⁷, is made necessary to develop training and education programs of preventive measures aimed at any professional and there is promotion strategies to support the maintenance of the HIV positive worker in their workplace and in everyday life categories.

CONCLUSION

Through this study, we describe the epidemiological profile of registered users in a TCC, which is composed of young and adults infected with HIV/AIDS, with a slight female predominance; and significant number of male residents in urban areas and with low level of education, housewives, farmer, self-employed, seller, and student and sex worker the most prevalent occupations.

It is important that prospective studies be conducted in order to determine with greater certainty the epidemiological profile of these users, by reason of the lack of information by inadequate completion of SIREX and records some variables could not be analyzed in order to hinder the creation of a complete database for analysis and undermine the determination with higher reliability and safety of the epidemiological profile of HIV-positive TCC users. However, this work allows it to be compared to the reality of a region with epidemiological surveys conducted in other Brazilian cities and in other countries in guiding the epidemiological profile of cases of HIV/AIDS in order to assist in improvement and implementation measures prevention and quality of care to that population.

The contribution is expected to promote the healthcare professional, which has importance in the reception and counseling of HIV-positive individuals, reflection on the impact of Aids not only in the biological sense, but also socio-economic. It was identified in the study the need for complete record of patient records and computerization of data. It is important that correct completion of data so that later such demographic data can reflect more reliably the epidemiological profile of individuals seeking the services of the TCC. It is believed that this research will contribute to drawing up plans to improve service quality and enhance the maintenance and enhancement strategies that improve the quality of life of HIV-positive individuals in their daily lives, in the workplace and in the labor market.

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